Pu'ukoholā Heiau National Historic Site

History: On a barren hill in Hawaii Island's Kohala district, the powerful chief Kamehameha consecrated a massive temple of war in the summer of 1791. Pu'ukoholā Heiau, which he dedicated to his family war god Kūkā'ilimoku, was viewed by Kamehameha and his enemies as the conduit through which he would increase his mana (spiritual power) to do what no one had ever done in the history of the Hawaiian people. From this temple on Hawai'i Island, Kamehameha began in earnest his struggle to unify all of the Hawaiian Islands under his authority. During this time Kamehameha greatly benefited from the westerners that had begun visiting and trading in the islands. In addition to acquiring new technologies, such as cannons, muskets and western-style ships, Kamehameha relied on the assistance of foreign advisors in his struggle against rival chiefs. Most notably, two British sailors, John Young and Isaac Davis, served as loyal advisors to Kamehameha and were given great authority in his kingdom.

Pu'ukoholā Heiau National Historic Site (PUHE) was officially established on August 17, 1972 to restore and preserve "the historically significant temple associated with Kamehameha the Great, who founded the historic Kingdom of Hawaii, and the property of John Young who fought for Kamehameha the Great."

The two main Heiau in the late 1800's (above) and in 2009 (below).

Cultural Resources: The namesake of the park, Pu'ukoholā Heiau, dominates the historic scene. It is believed by many that this temple was actually built upon an existing older temple, parts of which were incorporated into the current structure by Kamehameha in the early 1790's. Another primary site is the John Young Homestead, consisting of the remains of several habitations and related structures. Archeological research indicates that the main structure, believed to have been the home of John Young, is the oldest known western-style house in the Hawaiian Islands. The primary house appears to be a transitional structure, combining both Hawaiian and European styles.

Directly below Pu'ukoholā Heiau is an older temple called Mailekini Heiau. Believed to have been used by the ancestors of Kamehameha, this structure was converted into a fort by John Young at the request of Kamehameha sometime after 1810. Although no weapons remain, this fort is believed to have been armed with as many as 21 canons and possessed a storehouse for European firearms.

Just offshore is Hale o Kapuni Heiau, a now-submerged temple that was once dedicated to ancestral spirits who visited the site in the form of sharks. In addition to historic structures, the park is home to Pelekane, a royal courtyard that is believed to have been a home for Kamehameha and his family, the birthplace of Queen Emma and the landing site of important foreign visitors who came here between 1790 and the mid 1800's.

The presumed birthplace of Queen Emma.

Natural Resources: Situated in the driest region of the Hawaiian Islands, PUHE receives very little precipitation. Kawaihae, where PUHE is located, holds the state record for the lowest annual precipitation at 0.19 feet. Because of the desert climate, the diversity of flora and fauna is severely limited. Although many plant species within the park have been introduced since European contact, some trees such as the kukui (*Aleurites moluccana*) date back to early Polynesian settlement.

Hairy abutilon (*Abutilon grandifolium*) is one of the many attractive, but nonnative plants found at the historic site.

Native flora can also be found in this tropical desert, including pili grass (*Heteropogon contortus*), milo (*Thespesia populnea*), and 'ilima (*Sida fallax*). The only endemic terrestrial mammal in the islands, the Hawaiian hoary bat (*Lasiurus cinereus semotus*), is occasionally seen in PUHE. Bird life in the park is usually limited to introduced species, however migratory shore birds

and the Hawaiian owl (*Asio flammeus sandwicensis*) can occasionally be seen. Arguably the most popular natural resource commonly observed by the park's visitors is the black-tipped reef sharks (*Carcharhinus melanopterus*) that frequent Pelekane Bay. Additionally, green sea turtles (*Chelonia mydas mydas)*, spinner dolphins (*Stenella longirostris*), and humpback whales (*Megaptera novaeangliae*) are common adjacent to the park's authorized boundary.

During the past year and a half, volunteers have been monitoring the black-tipped reef shark population in Pelekane Bay. More extensive research is to be conducted through mid-2010 through a cooperative agreement with the Hawaii Marine Mammal Consortium. For many years, during the winter months, the Hawaiian Islands Humpback Whale National Marine Sanctuary includes PUHE in the "Sanctuary Ocean Count," which provides important population and distribution information on humpback whales in the islands.

The Pacific Island Network has conducted several inventories at PUHE including: a reptile and amphibian survey, a hoary bat survey, a plant survey, and a shoreline bird survey. Water quality monitoring is currently occurring in the park, and climate, freshwater animals, and various plant monitoring programs are forthcoming. In addtion, a draft vegetation map has just been completed for the site.

Current Issues in Management: The most pressing issue for PUHE is the stabilization and repair work currently underway as a result of the 2006 earthquakes, which severely damaged historic structures. A dedicated team of NPS employees and volunteers have been repairing the walls of Pu'ukohola Heiau and Mailekini Heiau, and in September began work on the John Young Homestead.

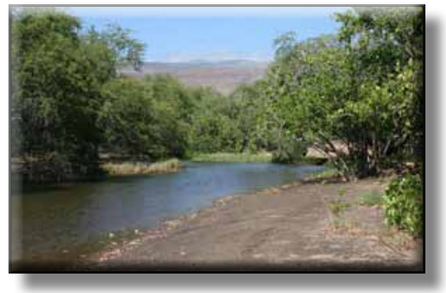
Furthermore, there is the potential that the State of Hawaii will reroute Highway 270 around the park, thus making PUHE a contiguous unit and allowing safe access for visitors to the John Young Homestead.

The house gecko (*Hemidactylus frenatus*) was the most abundant of four species of reptiles found during a herpetological survey. The green sea turtle (*Chelonia mydas mydas*) was the only native reptile documented in the park.

Finally, as a result of the American Recovery and Reinvestment Act of 2009, $2.7 million was secured to mitigate sedimentation issues in the watershed and Pelekane Bay. This grant is administered by the National Oceanic and Atmospheric Administration, and will seek to restore nearly 1,500 acres of coastal and marine habitat by reducing the amount of land-based sediment on coral reefs and the nearshore environment.

Come visit us in person or on-line at: www.nps.gov/puhe/index.htm

—G. Cunningham, Ranger



Pelekane stream has endured harsh changes over the years. Planned improvements to the watershed should partially restore the health of the stream and bay.

Archived photo of Kawaihae shoreline (left) and photo from 2009. Although kiawe (*Prosopis pallida*) are now common nonnative trees on the Kohala coast, the tree on the left would likely have been one of the pioneers on the Big Island. The kiawe on the right may be one of its descendants which must now share space with cars and a harbor wall.